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TITLE : SLIDING PARTS

ABSTRACT : PROBLEM TO BE SOLVED: To improve wear resistance without deteriorating toughness and to prevent the occurrence of seizure.

SOLUTION: The sliding parts are obtained by applying heat treatment including carburizing treatment to a stock composed of steel. The content of C in the surface part is 0.9-3.0 wt.%, and surface hardness is ≥ 63 Rockwell C hardness. Fine spheroidal carbides are precipitated in the carburized layer, and the average grain size of the spheroidal carbides is $\leq 10 \mu\text{m}$ and the amount of the spheroidal carbides is $\leq 40\%$ by area ratio. Moreover, the grain size of $\geq 70\%$ of the spheroidal carbides is $\leq 10 \mu\text{m}$, and the amount of residual austenite in the carburized layer is 13-40%.

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